IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method for detecting motion of an object using a capacitance based sensing and control system, said method comprising ~~the steps of~~:

sensing a presence of the object based on measured capacitance between a sensor and the object including measuring charge transfer to determine the relative capacitance of the object;

sensing a change in capacitance of the object; and

adjusting operation of the control system based upon said sensed capacitance change.

2. (canceled)

3. (currently amended) A method according to Claim 1, further comprising ~~the step of~~ recalibrating the control system when ~~at least one of~~ a new, nominal capacitive load is detected ~~and~~or at a user's discretion.

4. (currently amended) A method according to Claim 1, wherein ~~said step of~~ sensing a change in capacitance further comprises ~~the step of~~ sensing changes in the geometry of the object.

5. (currently amended) A method according to Claim 1, wherein ~~said step of~~ sensing a change in capacitance further comprises ~~the step of~~ sensing proximity of the object to other objects.

6. (currently amended) A method in accordance with Claim 1, wherein the ~~sensor~~ object is a human body.

7. (currently amended) A capacitance based proximity sensor comprising:

a sensing surface of thin film conducting material; and

a non-conducting backing material comprising a front side and a back side, said sensing surface mounted on said front side, wherein said sensing surface is configured to be of a smaller surface area than said backing material.

8. (currently amended) A sensor according to Claim 7, wherein said sensor further comprises an optional backing surface of conducting material upon which said back side of said non-conducting backing material is mounted.

9. (currently amended) A sensor according to Claim 7, wherein said sensing surface is electrically coupled to a capacitance sensing circuit.

10. (currently amended) A sensor according to Claim 8, wherein said optional backing surface is electrically coupled to a circuit ground.

11. (currently amended) A sensor according to Claim 7, wherein said sensor is configured to be cylindrically shaped.

12. (currently amended) A sensor according to Claim 11, wherein said sensing material is configured to cover an outer surface and both end surfaces of the cylinder.

13. (currently amended) A sensor according to Claim 7, wherein said sensor is rectangularly shaped.

14. (canceled)

15. (currently amended) A sensor according to Claim 13, wherein said rectangularly shaped sensor is approximately 20 cm in both length and width.

16. (currently amended) A sensor according to Claim 13, wherein said sensing surface comprises a plurality of electrically connected rectangular shaped conductors, said rectangular conductors each having an inner dimension and an outer dimension.

17. (currently amended) A sensor according to Claim 16, comprising three rectangular shaped conductors.

18. (currently amended) A sensor according to Claim 17, wherein a first rectangularly shaped conductor comprises an inner dimension of 0 cm and an outer dimension of 1.5 cm, a second rectangularly shaped conductor comprises an inner dimension of 4.5 cm and an outer dimension of 7.5 cm, and a third rectangularly shaped conductor comprises an inner dimension of 10.5 cm and an outer dimension of 14.75 cm.

19. (currently amended) A sensor according to Claim 7, wherein said sensor is circularly shaped.

20. (canceled)

21. (currently amended) A sensor according to Claim 19, wherein said circularly shaped sensor is approximately 21 cm in diameter.

22. (currently amended) A sensor according to Claim 19, wherein said sensing surface comprises a plurality of electrically connected circularly shaped conductors, said circular conductors each having an inner dimension and an outer dimension.

23. (currently amended) A sensor according to Claim 22, comprising three circular shaped conductors.

24. (currently amended) A sensor according to Claim 23, wherein a first circularly shaped conductor comprises a diameter of 3 cm, a second ring shaped conductor comprises an inner diameter of 9 cm and an outer diameter of 15 cm, and a third ring shaped conductor comprises an inner diameter of 21 cm and an outer diameter of 27 cm.

25. (currently amended) A sensor according to Claim 7, wherein said sensor is irregularly shaped.

26. (canceled)

27. (currently amended) A sensor according to Claim 25, wherein said irregularly shaped sensor is approximately 21 cm in length and width.

28. (currently amended) A sensor according to Claim 25, wherein said sensing surface comprises a plurality of electrically connected irregularly shaped conductors, said irregularly shaped conductors each having an inner dimension and an outer dimension.

29. (currently amended) A sensor according to Claim 28, comprising three irregularly shaped conductors.

30. (currently amended) A sensor according to Claim 29, wherein a first irregularly shaped conductor comprises a length and width of 3 cm, a second irregularly ring shaped conductor comprises an inner length and width of 9 cm and an outer length

and width of 15 cm, and a third irregularly ring shaped conductor comprises an inner length and width of 21 cm and an outer length and width of 27 cm.

31. – 44. (canceled)

45. (currently amended) An apparatus comprising:

a sensing surface of thin film conducting material, said sensing surface configured to have a plurality of sensing zones configured to partially cover an outer surface of said apparatus;

a non-conducting backing material comprising a front side and a back side, and

said sensing surface mounted on said non-conducting backing.

46. (currently amended) An apparatus in accordance with Claim 45, wherein said apparatus configured to be at least one of a sensor and a detector.

47. (currently amended) An apparatus in accordance with Claim 45, wherein said sensing surface is electrically coupled to a capacitive sensing circuit.

48. (currently amended) An apparatus in accordance with Claim 47, wherein said capacitive sensing circuit configured to measure a nominal capacitance at least up to 2500 pF.

49. (currently amended) An apparatus in accordance with Claim 45, wherein said backing surface is electrically coupled to a circuit ground.

50. (currently amended) An apparatus in accordance with Claim 45, wherein said apparatus is configured to be cylindrically shaped.

51. (currently amended) An apparatus in accordance with Claim 45, wherein said apparatus is configured to be an irregular shape.

52. (currently amended) An apparatus in accordance with Claim 51, wherein said apparatus is configured to be an irregular shape including a angled front side, a flat back side, an open top side, a convex first side, a convex second side offset from said first side.

53. (currently amended) An apparatus in accordance with Claim 45, wherein said sensing material is configured to cover an outer surface of said apparatus.

54. (currently amended) An apparatus in accordance with Claim 45, wherein said apparatus is configured to be rectangularly shaped.

55. (currently amended) An apparatus in accordance with Claim 54, wherein said sensing material is configured to be of a smaller surface area than said backing material.

56. (currently amended) An apparatus in accordance with Claim 45, wherein said sensing surface configured as a single sensing zone.

57. (currently amended) An apparatus in accordance with Claim 56, wherein said sensing zone configured to be electrically coupled to a capacitive sensing circuit.

58. (canceled)

59. (currently amended) An apparatus in accordance with Claim ~~58~~45, wherein said sensing zones configured to be electrically coupled to a capacitive sensing circuit.

60. (currently amended) An apparatus in accordance with Claim ~~58~~45, wherein said sensing zones configured to be spaced equidistant from one another.

61. (canceled).

62. (new) A method for detecting motion of an object using a capacitance based sensing and control system, said method comprising:

sensing a presence of the object based on measured capacitance between a sensor and the object;

sensing a change in capacitance of the object;

adjusting operation of the control system based upon said sensed capacitance change; and

recalibrating the control system when a new, nominal capacitive load is detected or at a user's discretion.